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AGILENT TECHNOLOGIES, INC.  
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EXAMINER

FORMAN, BETTY J

ART UNIT PAPER NUMBER

1634

DATE MAILED: 03/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

2/1/04

<b>Office Action Summary</b>	<b>Application No.</b> 10/010,020	<b>Applicant(s)</b> GORDON, GARY B.	
	<b>Examiner</b> BJ Forman	<b>Art Unit</b> 1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**FINAL ACTION**

***Status of the Claims***

1. This action is in response to papers filed 5 December 2003 in which claims 8-15 were amended; claims 16-25 were added; pages 6-11 of the specification were submitted; and pages 1, 4 and 14 of the specification were amended. The claim amendments and pages 6-11 have been thoroughly reviewed and entered. The amendments to pages 1, 4 and 14 have not been entered because they were not accompanied by a marked up copy of the amended paragraphs as required under 37 C.F.R. § 1.121 (2).

The previous objections to the specification and to Claim 11 are withdrawn in view of the amendments. The previous rejections under 35 U.S.C. 112, second paragraph are withdrawn in view of the amendments.

The previous rejections under 35 U.S.C. 102(b), 102(e) and 35 U.S.C. 103(a), not reiterated below are withdrawn in view of the amendments.

The previous rejection under statutory type (35 U.S.C. 101) double patenting rejection over application 09/971,867 is withdrawn in view of the abandonment of the '867 application.

Applicant's arguments have been thoroughly reviewed and are discussed below as they apply to the instant grounds for rejection. New grounds for rejection, necessitated by amendment, are discussed.

Claims 8-25 are under prosecution.

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***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 8-13, 15-23 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith et al (U.S. Patent Application Publication No. 2002/0001803 A1, filed 20 July 1999).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Regarding Claim 8, Smith et al disclose an array hybridization method comprising introducing a sample liquid into a reaction cell so that some of the interior volume is partially occupied by sample liquid and partially occupied by gas (i.e. the sample liquid within the cell incompletely fills the cell which would further be filled with air, ¶ 48 and Fig. 3) centrifuging said sample liquid by rotating said cell having a probe array so that centrifugal forces in excess of 1G (¶ 50, lines 6-16) urge the sample liquid against the array and agitating said sample liquid in the reaction cell during centrifugation so that said sample liquid moves relative to the array (¶ 50-52 and Claims 1-5).

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Regarding Claim 9, Smith et al disclose the method wherein the agitation involves rotating the sample cell about an axis that is more orthogonal to than along said centrifugal force i.e. not perpendicular (Claim 5).

Regarding Claim 10, Smith et al disclose the method wherein said agitating involves periodically changing the direction of rotation about the agitation axis (§ 50, lines 16-22).

Regarding Claim 11, Smith et al disclose the method wherein the said centrifugation involves rotating said cell at a centrifuge rate greater than agitation rate (§ 50).

Regarding Claim 12, Smith et al disclose the method wherein the agitation involves rotating said sample cell about an axis ("x") that extends parallel to the axis of centrifugal force (28) (Fig. 3 and § 50).

Regarding Claim 13, Smith et al disclose the method wherein the array extends more orthogonal to centrifugal than along it so that the centrifugal forces use the sample liquid against the array (§ 50, lines 22-28 and Fig. 3).

Regarding Claim 15, Smith et al disclose the method wherein the sample liquid occupies at most half of the interior volume (Fig. 3).

Regarding Claim 16, Smith et al disclose a method comprising introducing a sample liquid into a reaction cell having a hybridization probe array so that some of the interior volume is partially occupied by sample liquid and partially occupied by gas (i.e. the sample liquid within the cell incompletely fills the cell which would further be filled with air, § 48 and Fig. 3) centrifuging said sample liquid by rotating said cell having a probe array so that centrifugal forces urge the sample liquid against the array and agitating said sample liquid in the reaction cell during centrifugation so that said sample liquid moves relative to the array (§ 50-52 and Claims 1-5) wherein the agitation involves rotating the sample cell about an axis that is more orthogonal to than along said centrifugal force i.e. not perpendicular (Claim 5).

Regarding Claim 17, Smith et al disclose the method wherein the agitation involves periodically changing the direction of rotation about an axis to define an agitation cycle (§ 50).

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Regarding Claim 18, Smith et al disclose the method wherein the said centrifugation involves rotating said cell at a centrifuge rate greater than agitation rate (§ 50).

Regarding Claim 19, Smith et al disclose the method wherein the sample liquid occupies at most half of the interior volume (Fig. 3).

Regarding Claim 20, Smith et al disclose a method comprising introducing a sample liquid into a reaction cell having a hybridization probe array so that some interior volume is partially occupied by sample liquid and partially occupied by gas (i.e. the sample liquid within the cell incompletely fills the cell which would further be filled with air, § 48 and Fig. 3) centrifuging said sample liquid by rotating said cell having a probe array so that centrifugal forces urge the sample liquid against the array and rotating the cell about an agitation axis that is more parallel than orthogonal to the centrifugal force so that said sample liquid moves relative to the array (§ 50-52; Fig. 3; and Claims 1-5).

Regarding Claim 21, Smith et al disclose the method wherein the agitation involves periodically changing the direction of rotation about an axis to define an agitation cycle (§ 50).

Regarding Claim 22, Smith et al disclose the method wherein the said centrifugation involves rotating said cell at a centrifuge rate greater than agitation rate (§ 50).

Regarding Claim 23, Smith et al disclose the method wherein the array (#20) extends more orthogonal to the centrifugal force (#28) than along it so that the centrifugal force urges the sample liquid against the array (Fig.3 and § 50).

Regarding Claim 25, Smith et al disclose the method wherein the sample liquid occupies at most half of the interior volume (Fig. 3).

### **Response to Arguments**

4. Applicant argues that Smith et al does not anticipate the claims as amended. The argument has been considered but not found persuasive because as cited above, Smith et al specifically teach centrifugal forces in excess of 1G (§ 50, lines 6-16)

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trulson et al (U.S. Patent No. 5,834,758, issued 10 November 1998) in view of Holmes (U.S. Patent No. 5,527,681, issued 18 June 1996) and Klein (U.S. Patent No. 5,449,621, issued 12 September 1995).

Regarding Claim 8, Trulson et al teach an array hybridization method comprising introducing a sample liquid into a reaction cell so that some of the interior volume is partially occupied by sample liquid and partially occupied by gas (N<sub>2</sub> bubbles), centrifuging said sample liquid by rotating (i.e. circulate, Column 9, lines 37-40) said cell having a probe array so that centrifugal forces urge the sample liquid against the array and agitating said sample liquid in the reaction cell during centrifugation so that said sample liquid moves relative to the array (Column 9, line 27-50 and Column 14, lines 12-42). Additionally, Holmes teaches a method



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comprising introducing a liquid sample into a reaction cell and a centrifuging by rotating said reaction cell wherein said centrifuge substantially reduces the amount of reagents needed (Column 10, lines 14-23). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the centrifugation of Holmes et al to the method of Trulson et al to thereby reduce the amount of reagents needed as taught by Holmes (Column 10, lines 14-23) because the skilled practitioner in the art would have been motivated to reduce the amount of costly hybridization reagents to thereby maximize experimental results at minimal cost.

Furthermore, centrifugal forces in excess of 1G (i.e. 10,000 rpm) were well known and routinely practiced for mixing within reaction chambers as taught by Klein (Column 5, lines 32-58). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the centrifugal force of Klein to the centrifugation of Holmes for the obvious benefits of using a well know centrifugation.

7. Claims 9-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trulson et al (U.S. Patent No. 5,834,758, issued 10 November 1998) in view of Holmes (U.S. Patent No. 5,527,681, issued 18 June 1996) and Klein (U.S. Patent No. 5,449,621, issued 12 September 1995) as applied to Claim 8 above and further in view of Combs (U.S. Patent No. 4,812,294, issued 14 March 1989).

Regarding Claim 9, Trulson et al teaches the method wherein the sample fluid is agitated and circulated (Column 9, lines 37-40) but they do not teach an axis of centrifugation is more orthogonal to than along said centrifugal force. Combs teaches a similar method utilizing a reaction cell, a centrifuge and an agitator wherein said agitator rotates said reaction



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cell about an axis more orthogonal to than along said centrifugal force wherein said orthogonal axis allows fluid to flow as desired even under conditions of gravity (Abstract, lines 3-10). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify rotational axis of the agitator of Trulson et al with the more orthogonal axis as taught by Combs for the expected benefit of allowing the sample liquid to flow across the reaction cell under conditions of gravity as taught by Combs (Abstract).

Regarding Claim 10, Trulson et al teaches the method wherein the sample fluid is agitated and circulated to facilitate hybridization and shorten hybridization time (Column 9, lines 37-40) but they do not teach the agitator changes direction periodically. However, it was well known in the art at the time the claimed invention was made that agitators periodically change direction as taught by Klein who teaches that agitators change direction of rotation of a reaction cell relative to said rotor periodically so as to define an agitation cycle and improve mixing within the reaction cell (Column 5, lines 32-58). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the direction changing of Klein to the agitation of Trulson et al to thereby improve mixing within the reaction cell as taught by Klein (Column 5, lines 32-58) for the obvious benefits of maximizing interaction (mixing) of hybridization components and thereby optimizing hybridization results.

Regarding Claim 11, Klein teaches the apparatus wherein said rotor has a rotation rate greater than said agitation cycle rate (Column 5, lines 38-44).

Regarding Claims 12 and 13, Trulson et al is silent regarding agitation axis. However, Combs teaches the similar method wherein said agitation means rotates said reaction cell about an axis that extends more parallel than orthogonal to said centrifuge axis (Column 13, lines 30-35 and Fig. 11). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made apply the agitation axis of Combs to the method of Trulson for the expected benefit of providing the desired fluid flow based on the processing cycle as taught by Combs (Column 13, lines 12-15).

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Regarding Claim 14, Trulson et al teach the method further comprising removing sample liquid from the reaction cell wherein removing the liquid involves rotating (agitating) to for fluid away from the array (Column 14, lines 12-60).

Regarding Claim 15, Trulson et al teach the method wherein the reaction cell is filled at most half way with sample liquid i.e. N<sub>2</sub> is injected into the reaction cell until the amount of fluid in the container nears empty (Column 14, lines 34-42). At this point during the reaction, the reaction cell is filled at most half way with the sample liquid as claimed.

Regarding Claim 16, Trulson et al teach an array hybridization method comprising introducing a sample liquid into a reaction cell so that some of the interior volume is partially occupied by sample liquid and partially occupied by gas (N<sub>2</sub> bubbles), centrifuging said sample liquid by rotating (i.e. circulate, Column 9, lines 37-40) said cell having a probe array so that centrifugal forces urge the sample liquid against the array and agitating said sample liquid in the reaction cell during centrifugation so that said sample liquid moves relative to the array (Column 9, line 27-50 and Column 14, lines 12-42). Additionally, Holmes teaches a method comprising introducing a liquid sample into a reaction cell and a centrifuging by rotating said reaction cell wherein said centrifuge substantially reduces the amount of reagents needed (Column 10, lines 14-23). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the centrifugation of Holmes et al to the method of Trulson et al to thereby reduce the amount of reagents needed as taught by Holmes (Column 10, lines 14-23) because the skilled practitioner in the art would have been motivated to reduce the amount of costly hybridization reagents to thereby maximize experimental results at minimal cost.

Furthermore, centrifugal forces in excess of 1G (i.e. 10,000 rpm) were well known and routinely practiced for mixing within reaction chambers as taught by Klein (Column 5, lines 32-58). It would have been obvious to one of ordinary skill in the art at the time the claimed

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invention was made to apply the centrifugal force of Klein to the centrifugation of Holmes for the obvious benefits of using a well know centrifugation.

Combs teaches the similar method utilizing a reaction cell, a centrifuge and an agitator wherein said agitator rotates said reaction cell about an axis more orthogonal to than along said centrifugal force wherein said orthogonal axis allows fluid to flow as desired even under conditions of gravity (Abstract, lines 3-10). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify rotational axis of the agitator of Trulson et al with the more orthogonal axis as taught by Combs for the expected benefit of allowing the sample liquid to flow across the reaction cell under conditions of gravity as taught by Combs (Abstract).

Regarding Claim 17, Trulson et al teaches the method wherein the sample fluid is agitated and circulated to facilitate hybridization and shorten hybridization time (Column 9, lines 37-40) but they do not teach the agitator changes direction periodically. However, it was well known in the art at the time the claimed invention was made that agitators periodically change direction as taught by Klein who teaches that agitators change direction of rotation of a reaction cell relative to said rotor periodically so as to define an agitation cycle and improve mixing within the reaction cell (Column 5, lines 32-58). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the direction changing of Klein to the agitation of Trulson et al to thereby improve mixing within the reaction cell as taught by Klein (Column 5, lines 32-58) for the obvious benefits of maximizing interaction (mixing) of hybridization components and thereby optimizing hybridization results.

Regarding Claim 18, Klein teaches the apparatus wherein said rotor has a rotation rate greater than said agitation cycle rate (Column 5, lines 38-44).

Regarding Claim 19, Trulson et al teach the method wherein the reaction cell is filled at most half way with sample liquid i.e. N<sub>2</sub> is injected into the reaction cell until the amount of

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fluid in the container nears empty (Column 14, lines 34-42). At this point during the reaction, the reaction cell is filled at most half way with the sample liquid as claimed.

Regarding Claim 20, Trulson et al teach an array hybridization method comprising introducing a sample liquid into a reaction cell so that some of the interior volume is partially occupied by sample liquid and partially occupied by gas (N<sub>2</sub> bubbles), centrifuging said sample liquid by rotating (i.e. circulate, Column 9, lines 37-40) said cell having a probe array so that centrifugal forces urge the sample liquid against the array and agitating said sample liquid in the reaction cell during centrifugation so that said sample liquid moves relative to the array (Column 9, line 27-50 and Column 14, lines 12-42). Additionally, Holmes teaches a method comprising introducing a liquid sample into a reaction cell and a centrifuging by rotating said reaction cell wherein said centrifuge substantially reduces the amount of reagents needed (Column 10, lines 14-23). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the centrifugation of Holmes et al to the method of Trulson et al to thereby reduce the amount of reagents needed as taught by Holmes (Column 10, lines 14-23) because the skilled practitioner in the art would have been motivated to reduce the amount of costly hybridization reagents to thereby maximize experimental results at minimal cost.

Furthermore, centrifugal forces in excess of 1G (i.e. 10,000 rpm) were well known and routinely practiced for mixing within reaction chambers as taught by Klein (Column 5, lines 32-58). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the centrifugal force of Klein to the centrifugation of Holmes for the obvious benefits of using a well know centrifugation.

Combs teaches the similar method wherein said agitation means rotates said reaction cell about an axis that extends more parallel than orthogonal to said centrifuge axis (Column 13, lines 30-35 and Fig. 11). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made apply the agitation axis of Combs to the method of

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Trulson for the expected benefit of providing the desired fluid flow based on the processing cycle as taught by Combs (Column 13, lines 12-15).

Regarding Claim 21, Trulson et al teaches the method wherein the sample fluid is agitated and circulated to facilitate hybridization and shorten hybridization time (Column 9, lines 37-40) but they do not teach the agitator changes direction periodically. However, it was well known in the art at the time the claimed invention was made that agitators periodically change direction as taught by Klein who teaches that agitators change direction of rotation of a reaction cell relative to said rotor periodically so as to define an agitation cycle and improve mixing within the reaction cell (Column 5, lines 32-58). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the direction changing of Klein to the agitation of Trulson et al to thereby improve mixing within the reaction cell as taught by Klein (Column 5, lines 32-58) for the obvious benefits of maximizing interaction (mixing) of hybridization components and thereby optimizing hybridization results.

Regarding Claim 22, Klein teaches the apparatus wherein said rotor has a rotation rate greater than said agitation cycle rate (Column 5, lines 38-44).

Regarding Claim 23, Combs teaches the similar method wherein said agitation means rotates said reaction cell about an axis that extends more parallel than orthogonal to said centrifuge axis (Column 13, lines 30-35 and Fig. 11). While they do not specifically teach an array position relative to the centrifugal force, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the array position to thereby maximize the sample array contact.

Regarding Claim 24, Trulson et al teach the method further comprising removing sample liquid from the reaction cell wherein removing the liquid involves rotating (agitating) to for fluid away from the array (Column 14, lines 12-60).

Regarding Claim 25, Trulson et al teach the method wherein the reaction cell is filled at most half way with sample liquid i.e. N<sub>2</sub> is injected into the reaction cell until the amount of

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fluid in the container nears empty (Column 14, lines 34-42). At this point during the reaction, the reaction cell is filled at most half way with the sample liquid as claimed.

### **Response to Arguments**

8. Applicant argues that Truleson dose not teach the newly claimed centrifugal force in excess of 1 G. The arguments have been considered but are deemed moot in view of the withdrawn rejection and new grounds for rejection discussed above.

### **Double Patenting**

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 8-15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 09/729,169. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to methods comprising the steps of introducing a liquid into a reaction cell, centrifuging the sample by rotating the cell and agitating (mixing) the sample. The sets of claims differ only in the arrangement of limitations. For example, instant Claim 1 is drawn to an array hybridization method while Claim 1 of the '169 application is drawn to a method for contacting components



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and dependent Claim 12 limits the method to hybridization. As such, both sets of claims are drawn to similar methods which are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### **Response to Arguments**

11. Applicant argues that the amendments adding the 1G limitation to all claims overcomes the above rejection. The argument has been considered but is not found persuasive because the '169 claims have also been amended to add the 1G limitation. The rejection is maintained.

12. Claim 8 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 51 of copending Application No. 09/900,294. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claims are drawn to methods of hybridization comprising the steps of introducing a liquid into a reaction cell and maintaining conditions within the reaction cell to obtain hybridization. The sets of claims differ only in that the instant claim recites the hybridization condition (i.e. centrifuging the sample by rotating the cell and agitating the sample) while the '294 application relies on the disclosure to define identical conditions (i.e. centrifuging the sample by rotating the cell and agitating the sample, ¶ 82-84). As such, both claims are drawn to similar methods which are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.



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### **Response to Arguments**

13. Applicant argues that the amendments adding the 1G limitation to all claims overcomes the above rejection. The argument has been considered but is not found persuasive because the '294 application specification teaches the preferred embodiment of the claimed method wherein fluid is moved within the reaction chamber using rotational forces relative to gravity or centrifugal force (§ 84). This teaching clearly suggests the instantly claimed centrifugal force in excess of 1 G. The rejection is maintained.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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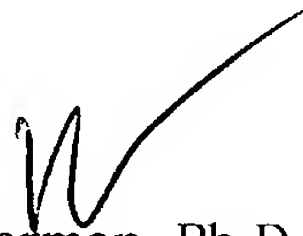
**Conclusion**

15. No claim is allowed.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (571) 272-0741. The examiner can normally be reached on 6:00 TO 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (571) 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BJ Forman, Ph.D.  
Primary Examiner  
Art Unit: 1634  
March 29, 2004